

PND8

COST-EFFECTIVENESS OF PREGABALIN AND OTHER ADD-ON ANTIEPILEPTIC DRUG THERAPIES IN PATIENTS WITH REFRACTORY PARTIAL EPILEPSY IN ARGENTINA

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OBJECTIVES: To estimate the cost-effectiveness of pregabalin and other add-on antiepileptic drug therapies in patients with refractory partial epilepsy [RPE] in Argentina **METHODS:** Using simulation modeling techniques, we estimated clinical outcomes and costs for a hypothetical cohort of 1000 patients with RPE alternatively assumed to receive pregabalin (300 and 600 mg/d), lamotrigine (300 and 500 mg/d), oxcarbazepine (1200 and 2400 mg/d), topiramate (200 and 400 mg/d), and no add-on therapy. Outcomes of interest were examined assuming no therapy discontinuation and included the expected mean number of days free of seizures ("seizure-free days" [SFD]) and the costs of add-on antiepileptic medication over one year for each therapy. Parameter estimates were based on efficacy data from randomized controlled trials of these agents and costs of medications (in Argentine Pesos [ARS]) from local sources. Cost-effectiveness was calculated as the incremental cost (vs no add-on therapy) per additional SFD. **RESULTS:** The incremental cost of pregabalin (vs no add-on therapy) per additional SFD was (mean (95% CI), ARS) 117 (91,152) for pregabalin 300 mg/d, 194 (166, 228) for lamotrigine (300 mg/d), 120 (100,150) for oxcarbazepine (2400 mg/d), and 235 (99, 1071) for topiramate (400 mg/d). When higher dosages were examined values were 157 (132, 181) for pregabalin 600 mg/d, 306 (271, 356) for lamotrigine (500 mg/d), 176 (145, 212) for oxcarbazepine (2400 mg/d), and 196 (142, 269) for topiramate (400 mg/d). **CONCLUSION:** The estimated cost-effectiveness of add-on antiepileptic therapy vs no add-on therapy for patients with RPE in Argentina is favorable for pregabalin (117–157 ARS per additional SFD) followed by OXC (120–176 ARS per additional SFD).

PND9

THE COST-EFFECTIVENESS OF NATALIZUMAB IN PATIENTS WITH RELAPSING MULTIPLE SCLEROSIS

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OBJECTIVES: Natalizumab is a new disease-modifying therapy (DMT) for the treatment of relapsing multiple sclerosis (MS). A model was designed to determine the relative cost-effectiveness of natalizumab compared with the other four currently available disease-modifying therapies (intramuscular [IM] interferon beta [IFN β]-1a, IFN β -1b, glatiramer acetate [GA], and subcutaneous [SC] IFN β -1a) for the treatment of relapsing MS in the United States. **METHODS:** Analyses were conducted from a managed care perspective with a time horizon of 2 years (first 2 years after initiation of therapy). Model inputs were drug acquisition costs, costs of drug administration and monitoring, costs of treating relapses, and anticipated reduction in relapse rates. Outcomes included total 2-year costs per patient and costs per relapse avoided for each therapy. Number of relapses avoided was calculated as the weighted average number of relapses for placebo-treated patients (1.90) multiplied by the anticipated relapse rate reduction for each therapy (natalizumab, 67%; IM IFN β -1a, 32%; IFN β -1b, 34%; GA, 29%; and SC IFN β -1a, 32%). Cost per relapse avoided was calculated as the total 2-year cost of therapy divided by the number of relapses avoided over 2 years.

RESULTS: The overall 2-year cost of therapy per patient was \$67,037 for natalizumab, \$42,311 for IM IFN β -1a, \$44,680 for IFN β -1b, \$44,300 for GA, and \$46,373 for SC IFN β -1a. The cost per relapse avoided was lowest for natalizumab at \$52,605 followed by \$69,091 for IFN β -1b, \$69,517 for IM IFN β -1a, \$76,191 for SC IFN β -1a, and \$80,314 for GA. Model inputs with the most influence on cost per relapse avoided for natalizumab were weighted average number of relapses prior to treatment and anticipated relative reduction in relapse rate. **CONCLUSION:** Although the drug acquisition cost of natalizumab was higher than that of the other DMTs, it was the most cost-effective therapy as measured by total cost per relapse avoided.

PND10

AN ANALYSIS OF THE HEALTH AND PRODUCTIVITY BURDEN OF INSOMNIA AND ITS TREATMENT

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OBJECTIVES: The objective of this study was to estimate the direct and indirect costs of treated and untreated insomnia in an employed population. **METHODS:** The Medstat MarketScan® Database was used for this study. Patients were included if they had a primary diagnosis of insomnia and/or received a new prescription for a non-benzodiazepine hypnotic medication between July 1, 1999 and June 31, 2003. Total health care costs, plus costs due to absenteeism, were calculated for the insomnia cohort (n = 5605), and for the propensity score matched non-insomnia cohort (total n = 55,580), during 6-month pre-index and post-index periods. Change in total costs were compared using an ordinary least square model for insomnia patients who were treated versus not initially treated with a prescription hypnotic within 14 days of an insomnia diagnosis. **RESULTS:** Prior to matching, the insomnia cohort was slightly younger (40 vs. 42 years), more likely to be female (44% vs 31%), and had significantly more medical and psychiatric comorbidity than the non-insomnia cohort (Charlson Comorbidity Index score 0.32 vs. 0.11; P < 0.01). After using propensity score matching and second stage regressions, the difference in average total expenditures in the 6-month post-index period between the cohort of insomnia patients (n = 5584) and matched non-insomnia controls—the burden of insomnia—was \$2738 (p < 0.001). Health care utilization contributed to 84% of total insomnia-related costs, while absenteeism contributed 16%. Six-month costs for prescription hypnotics averaged less than \$100 per patient. Both the treated and initially untreated insomnia patients experienced an increase in total costs; however, the increase for treated insomnia patients was \$788 less than for the initially untreated insomnia patients. **CONCLUSION:** Insomnia has a significant impact on direct health care cost, and on costs related to absenteeism. Insomnia treatment appears to be cost-effective relative to non-treatment, or delayed treatment.

PND11

LIFETIME CLINICAL AND ECONOMIC CONSEQUENCES OF CHANGES IN BODY WEIGHT ASSOCIATED WITH MIGRAINE HEADACHE PROPHYLAXIS WITH TOPIRAMATE VERSUS AMITRIPTYLINE

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OBJECTIVES: To estimate expected clinical and economic consequences of induced changes in body weight associated